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ABSTRACT

This overview of futurism defines it as a movement believing that a positive future world may be created through wise decision-making and futuristic planning. Present societal conditions have provided an impetus for a futuristic focus, and various authors, think tanks, techniques, and organizations have contributed to the wide acclaim and respect given futurism today. The three different approaches to futurism are crisis futurism, evolutionary futurism, and spiritual futurism; and they must be merged into a new synthesis as the best hope for a positive future. Three basic principles of futurism are the unity or interconnectedness of reality; the crucial importance of time; and the importance of ideas, which provide the substance about a time that has not yet been. Future-oriented persons share many characteristics, including a high level of creativity. Planning is one of the many areas in which future studies can be effectively used. Forecasting techniques futurists use include exploratory forecasting, normative forecasting, and the Delphi technique. Readings and cassette tapes on futurism and vocational education are listed. (Author/DCS)

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FUTURISM 1984: AN OVERVIEW

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U.S. DEPARTMENT OF EDUCATION
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For
The State Advisory Council
on
Vocational Education
Virginia

February 1984

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FUTURISM 1984: AN OVERVIEW

Greetings

Thank you. . . I bring greetings from our University President, Dr. Harrison B. Wilson, who maintains genuine interest in the work of this Council and in the significant role which Vocational Education plays in our society.

Also, I extend to the Council best wishes for a successful meeting from my mentors, Edward Cornish, President of the World Future Society and his charming wife, Sally, who serves as National Coordinator of State Coordinators of local chapters. Upon my request, they are sharing with you the following items which are on display.

1. A copy of the program from the conference last summer: Working Now and in the Future - which gives topics and presenters including the credentials of respective persons.

2. World Future Society Book Catalog - which provides some information as to categories of publications, a brief annotation, and price as well as publisher.

3. An announcement of WORLD VIEW "84", The Society's Fifth General Assembly and Exposition to be held in D. C. June 10-14, 1984. This will be a Global Assessment of Problems and Opportunities by internationally recognized Futurists.

4. A brochure of Questions and Answers about the Society--what it is, the Society's objectives, who belongs and how one may belong.

These are for your use - share a set with friends and colleagues, and I will look forward to seeing you in D. C. in June!

A young lad asked his Granpaw the difference between an optomist and a pessimist. "Well, Son, I'll tell you," said his Grandfather, "When an optomist gets frustrated he digs holes in

the ground. The more frustrated he is, the deeper the holes and the harder he digs. He just keeps on 'a-diggin.' When a pessimist gets frustrated he digs holes, too. His are small shallow ones, though. He stops, looks all around and when no one is looking he jumps in - to get away from the frustrations."

I should like to think that those here assembled are optomists. We are here to dig and dig and dig to find solutions to some of our frustrations about the world of work - and Vocational Education - for tomorrow and the long term future in Virginia. I believe we will find answers.

PREFACE

Vocational education programs have historically played a vital role in the development of American industry, the economy and social advancement. The quality of life has been improved as a result of contributions made by working men and women.

In recent decades, technology has made quantum leaps which appear to outdistance existing support in updating the diversity of training needs in vocational programs. Alternative measures as well as new and innovative strategies for meeting the demands of high technology have been devised. Those entrusted with decision-making to determine the thrust of these changing directions have exercised adaptability, flexibility, wisdom, dedication and foresight in keeping viable programs. However, a high level of public awareness and support from key business and industry leaders and policymakers is needed to bridge the gap between needs for effective delivery of training and the emerging job market which appears to make many existing programs and the equipment for these programs obsolete.

Vocational Education Advisory Councils over the country serve as a body to identify and examine challenges facing vocational education. Past records indicate that their recommendations to governing agencies, which do ultimately determine the course of vocational education, have made significant impact upon these agencies and boards. It is, therefore, fitting and most appropriate at this time that the Virginia Vocational Education Advisory Council, in looking at future directions of vocational education for this state, consider the theme of "futurism."

As an overview, this paper can only provide brief explanations of concepts which serve as a base upon which futurism has developed in the United Staes in recent decades. The introduction and impetus for futurism examine present societal conditions which appear to call for a futuristic focus. The brief historical overview outlines only a few guideposts which have led to present day futurism. A brief discussion of three different approaches to futurism is followed by some basic principles of futurism and futurists perspectives. The concluding sections deal with uses of futures studies and some methods for studying futures.

It was not the purpose of this paper to offer futuristic trends and forecasts about vocational education. Nevertheless, a selected reference list of readings and cassette tapes have been offered for further study.

FUTURISM 1984: AN OVERVIEW

Introduction

The human race today is experiencing the most rapid rate of change in all previous times. There appears to be no known way of curbing or diverting this hurricane force. Not only has the pace of change become the greatest known to man, but also the consequences of these changes have produced untold global crises. Thus, the scope and rapidity of such change have created traumatic social conditions.

Technology has produced enjoyable material goods while at the same time an abundance of scarcity: time, recognition, wisdom, love and stability among other factors. Such transformations in the lifestyles and adjustment patterns of individuals, corporations and social systems are little recognized or understood.

Man's ability to create new forms of existence may be seen in the atomic bomb, electronic brains, the robot, space travel and communication satelites. Willis Harman, in An Incomplete Guide to the Future, states that it is apparent today that many long-standing trends cannot continue unaltered. One such trend is in economic growth. An attitude of life which seeks fulfillment in materialism does not fit into the world of the future simply because such an attitude contains no limiting principle while the environment in which it is placed is strictly limited. Peter Drucker has called our time "the age of discontinuity." Discontent seems to abound. The constants and constraints in life appear to have disappeared.

Harman and his colleagues at Stanford Research Institute (Cornish, 1983) stated that present day man must first admit that there is a set of dilemmas, thwarted goals and intolerable trade-offs such that the future of society has become unmanageable. Next, man must discover or invent a nobler image of man and his potentialities than that which has come to dominate the industrial age. Some recent developments in trends which may lead to overall changes include:

. Awareness of the biosphere as a life-support system, concern for the environment, ecological systems and resource control;

. Awareness of potential dangers of technological manipulation to shape the future and for the new dimensions of human responsibility for the future of the planet and life thereupon;

. Awareness of people in lesser developed countries of major inequalities in access to the earth's resources and the power to change this; and

. Shift from deficiency-need concerns to self actualization. New forms of worker discontent, new political and social emphasis on self-determination, new styles of management are examples of this shift.

Cornish (1983, p. 49) discussed some ways in which the year 2000 may differ from the world today should present trends continue. The future world will probably be:

. More unified as a result of improved communications and transportation. People will increasingly be bound into an integrated world community;

. More standardized by speaking the same language, probably English, using the same types of goods, styles in clothing and the same currency;

. More affluent. Standards of living for many will be higher. Some things will be less expensive (telephone calls, computing services, videotape recorders) while some things will be more expensive (water, food, fuel and electricity);

. More leisured as people spend less time on the job;

. More mobile as people move about because of pleasure or business;

. More educated as more people learn how to read and write and get more degrees from colleges and universities;

. Less religious as general discontent with church systems continues;

. Less integrated by family and kinship. There will be greater mate changing, the family structure will continue to deteriorate and there will be an increase in more emotional problems in children.

While many people profess a "gloom and doom" philosophy about the future, others believe that a positive future world may be created through wise decision making and futuristic planning. The current movement in this direction is frequently labeled "FUTURISM."

The major purpose of this presentation, therefore, is to provide an overview of Futurism, 1984, as a stimulus for a panel of experts who will explore future directions in Vocational Education in Virginia. Concepts will include: Impetus for and a

brief historical review, approaches to and basic principles of futurism. Futurists perspectives, uses of futurist studies and futures research methods will be explored should time permit.

The future of the past is in the future.

The future of the present is in the past.

The future of the future is in the present.

John McHale, Scottish author: The Future of the Future (1965)

Impetus For A Futurism Focus

Richard D. Lamm, third term governor of Colorado, recently wrote that in the United States today, problems are clearly outrunning solutions. There is chronic unemployment, political stalemate, economic stagnation, and great social unrest. Contributing to this turmoil is the lack of agreement on the correct questions--let alone the solutions. Some questions posed by Lamm (1983) included the following: Is the public policy glass half empty or half full? Is the energy crisis a matter of inadequate supply or is it a matter of excessive demand? Are immigrants an asset as they have been or have they become a liability? Do we reduce our international vulnerability through foreign policy or through domestic policy? Should we continue our massive spending for illness care or should we invest in health promotion?

The future will not be simply an extension of the recent past. New economic and geographic forces will dramatically change past pictures. Short-term solutions may prove to be

counter-productive. Only those life-styles, industries, processes and institutions which can be sustained by the resources of this planet should be adopted. The future must be different.

If ever there was a right time for painting images of the future, it is now, note the editors of U. S. News and World Report, in the Golden Anniversary Issue, May 9, 1983. There appears to be an insatiable desire to know what will happen next year, next decade, next century. Investors seek assurances that the economic climate in years ahead will not jeopardize hard-earned cash. Business executives want solid predictions on population shifts, changes in consumer tastes and government policies. Workers agonize over whether their choice of a career will be a gateway to golden opportunity or to a dead-end street.

The escalating interest in "The Future" appears to have become an obsession with the general public, educational institutions, planners and the business community. FUTUREWORLD was the theme of an Exposition on the 21st Century in Los Angeles, California, May 5, 1983. Some special features of this group were space exploration, lasers, robots, holograms and fashions. The World Future Society hosted a conference, Working Now and in the Future, in Washington, D. C. in August 1983. Disney World's Experimental Prototype Community of Tomorrow (EPCOT) in Florida has delighted tourists with many futuristic ideas. The theme, 1984/THE FUTURE IS NOW, was selected by The 39th Annual Conference and Exhibitor Show, Association for Supervison and Curriculum Development to be held in New York City, March 9-11, 1984. Numerous publications with futurism as a focus are appearing

daily. Marien (1983), editor of Future Survey, has written over 5,000 abstracts of books and other articles about the future since 1979. What is "FUTURISM?"

A Brief Historical Overview of Futurism

First, futurism is not "fortune telling", the reading of tea leaves, the lines in one's hands or crystal ball gazing! Futurism is many things to many people nationally and internationally. The realm of futurism is much larger than most people image. A comprehensive synthesis, The Study of the Future, was made possible by a grant from the National Science Foundation and the Congressional Research Service (Library of Congress) in 1975. Edward Cornish, President of the World Future Society, and a total of more than 500 people as contributors, pooled resources, expertise and records for this publication which serves as the primary source for this paper.

Futurism is a distinctly modern phenomenon developed by scientists and scholars who have wanted to use knowledge in solving human problems. Ancient historians and philosophers have contributed to modern futurism. Plato's Republic began the Utopian concept which pictured an Ideal Society. Bacon formulated the Idea of Progress, a belief that civilization has moved, is moving and will continue to move in a desirable direction. In 1770, a Frenchman, Sebatian Mercier, published The Year 2440, a prohetic fiction, which was outlawed in his own country but which was translated in English and German. Jules Verne wrote From Earth to the Moon in 1865. Around 100 years later, a United States citizen actually landed a space craft on the moon. This

event was a globally recognized achievement of accurate forecasting.

H. G. Wells made an excursion into the future in 1883 with a paper, "The Past and Future of the Human Race." In 1913 Wells forecasted discovery of artificial radioactivity, the liberation of atomic energy and the development of an atomic bomb in the novel The World Set Free. In 1932, a physicist, Leo Szilard, read this book with much interest. But it was not until 1939 that Szilard developed a theoretical equation which could govern a self-sustaining chain reaction. Soon Szilard joined early explorations in working with the fission of uranium. The race to acquire new weapons for mass destruction had begun.

In his 1964 book, The Art of Conjecture, De Jounevel, a Frenchman, gave an epistemology and utility for the study of the future. He continued to elevate these concepts in his own country. However, it was in the interest of national security that the United States was prompted to study the future. Commanding General of the Army Air Force, H. H. Arnold, initiated the first "think factory." He also ordered the first major forecast of future technological capabilities in 1944. In 1946, Arnold influenced Douglas Aircraft to establish Project RAND (Research and Development) to study "inter-continental warfare other than surface." In 1948, Project RAND moved from Douglas to become RAND Corporation for whom Ford Foundation provided financial backing. This multidisciplinary think factory held strategic links to the non-scientific and technological communities, had a large degree of freedom to operate and was encouraged to

speculate upon many non-traditional ideas. The idea of "think tanks" soon became a significant aspect of the business and government communities. In 1959, one of these creative thinkers, Olaf Helmer, a mathematician, co-authored a paper, "The Epistomology of the Inexact Sciences" which provided a philosophical base for forecasting. Helmer had previously assisted in developing the Delphi technique which provides a rational method of exploring the future.

Historian Henry David, who had served as a RAND consultant in 1947-1948, and who was head of the Office of Science Resources Planning at the National Science Foundation, along with Helmer and others assembled a group of people who were interested in establishing an institute to specialize in futures research on domestic, civil and non-security issues. This committee issued a Prospectus for an Institute for the Future dated May 25, 1966. The major purposes of this Institute would be to: (1) explore systematically the possible futures for our nation and for the international community; (2) ascertain which among these possible futures seem to be desirable, and why; and (3) seek means by which the probability of their occurrence can be enhanced through appropriate purposeful action. Henry David was instrumental in securing for the Institute some initial funding, which by 1968 was more than $1 million. Since this time, the Institute has earned wide respect for work in careful analyses of future possibilities.

Before the 1960's there were few organized futurist groups. The decade of the 1960's became the decade of international

awareness for forming networks and groups of economists, scientists, humanists and educators among others. It was in 1966 that a group of private citizens formed the World Future Society. A decade later this group had over 30,000 members in over 80 countries. The Society is a chartered, non-profit scientific and educational organization which serves as an unbiased forum and clearinghouse for scholarly forecasts, investigations and intellectual explorations of the future. Hence, futurism has moved from a few scattered individuals working independently and often viewed with skepticism, to a widely acclaimed and highly respected following by the brightest and most creative people the world has to offer today.

Cornish (1983, p. 91-92) made the following summary:

> The people who have joined the new future-oriented organizations and subscribe to futurists publications tend to be well-educated people in a wide variety of occupations. University professors are well represented, especially sociologists and political scientists. In business concerns, interest in the future seems keenest among corporate planners, market researchers, systems analysts, and product developers. In government, strong interest appears among science policy-makers, technology forecasters in the military establishment, demographers, and economists who have become increasingly aware that economics is being profoundly influenced by non-economic forces.
>
> The futurists tend to be rational, scientific, and pragmatic in their outlook. They are not idle dreamers; in fact, their interest in the future seems to arise out of a desire to be really effective. They want genuine, long-term solutions, not temporary palliatives. They are also sensitive to emerging problems and want timely action taken before a problem grows into a crisis.

From the above summary, it may be concluded that there is no such thing as an "average" futurist. Each futurist has generally had unique experiences which have led to this special orientation

and philosophy. They speak many languages, live in nations over the world, practice different religions and work in many different fields. Although young people are becoming more interested in futures study, the majority of the most enthusiastic futurists are among the elderly who show great concern about the world of coming generations. Not all futurists agree in their approaches to the future. The following exploration gives only a brief example of some of these views. Although there are diverse opinions of the future, there are many common perspectives held by all. These are enumerated elsewhere in the paper.

Approaches to Futurism

Buckminister Fuller, an evolutionary futurist, has called Barbara Marx Hubbard, president of Futures Network, Inc., the best informed human alive on the concept of futurism. The following synthesis is based primarily upon her article "The Future of Futurism" in The Futurist, April 1983.

According to Hubbard, there are three different approaches to futurism: Crisis futurism, Evolutionary futurism, and Spiritual futurism. There may be positive and significant roles for each of these views, especially when they are merged into a new synthesis, as the best hope for a positive future. Futurism, a young discipline being created by a few of the million inhabitants of the planet, has catapulted into the center stage of history as breakdowns and breakthroughs in established systems and institutions escalate. It is the collective wisdom of these three approaches which may serve as guidelines for change in a troubled world.

Crisis Futurism. This is the most familiar of the three approaches. Alvin Toffler's Future Shock was an awakening force which stimulated this trend in public thinking. It is the rapidity of change rather than the actual change which often creates human incapacity to deal with technological changes. The many transformations which are happening all at once appear out of control as they exponentially create catastrophic crises. If such problems as pollution, population growth and nuclear arms acceleration are not stopped, it is doubtful that there will be a 'next generation,' according to this view.

The first report of the Club of Rome, 1972, The Limits to Growth, confronted business and political leaders with the reality and complexity of the world problem. Big was no longer better. Expanding world population and unrecognized consequences of industrialization and mechanization had created conditions leading to a "gloom and doom" perspective. What had been success for years had suddenly become failure. Shock flooded the nervous system of the general public. Efforts to ease some of the fears enshrouded in defense, hunger, values changes and eroding environmental conditions appears to be futile in the long run.

Evolutionary Futurism. From this vantage point, the human crisis of today appears to be an evolutionary jump, dangerous but natural, leading potentially not to reformation by adaptation to current limits but to transformation through adaptability, innovation, and new capacities. This view of futurism critically examines recurring patterns of transformation in the past, reaching back to the origin of the physical universe. Nature develops

through an evolutionary spiral to ever more complex whole systems, from molecules to cells to multicellular organisms to early humans and now to us. Quantum transformatoins are traditional. Crises are perceived as evolutionary drivers which go before these transformations. Such crises stimulate massive innovations. Some natural technologies which have led to these kinds of quantum changes over time are the genetic code, photosynthesis and language.

Evolutionary futurists are optimistic. They see new capacities and great opportunities in crises. Hubbard (1983) identified and discussed the following human capabilities being explored today: expanded consciousness, both intuitive and intellectual; expanded environment; extended cooperation; and extended life. This futurism identifies new potentials, processes, and long-range goals. A powerful new theory of "networking" offers people an avenue for problem resolution. Today, millions of people are such members of integrative groups which serve particular purposes in areas such as community building, education, peace-making, consciousness-raising, environmental protection or space-colonization.

An example of such networking is that of The Communications Era Task Force, Spokane, Washington. This group, working with Robert Theobald, economist and author of Beyond Despair: A - Policy Guide to the Communications Era, is sponsoring a document "At The Crossroads" which defines key issues the culture must address if we are to successfully evolve through the present transition. This document examines emerging shifts: from

medicine to health; from security provided by police and fire-fighters to community and personal responsibility; from schooling to life-long learning and learning to learn; from full employment to meaningful work, flexible time schedules on a daily, weekly, yearly and lifetime basis; and from the resolution of conflict by violence to arbitration, negotiation, and a variety of other win-win formats.

The First Planetary Congress, held in Toronto, Canada in June 1983, by the Planetary Initiative for The World We Choose represents gobal networking. Nearly 500 people from 20 countries and 4 continents participated for three days in small working groups. Some of the purposes of this group were to: examine the problems which threaten individual lives and all life on the planet; recognize that values and motivations behind the issues are the root causes that shape them into serious problems; and define the kind of world wanted for the future. The INITIATOR is the official newspaper of the network.

Spiritual Futurism. Spiritual experiences of vast numbers of people serve as the basis for this approach to futurism. It is perceived that a Creative Intelligence is operative in the universe, that all of life has been created by a Creative Process, and that as a result of these forces one can know the patterns of creating because "we are those patterns." Intellect and intuition are combined by these futurists. "They study the process of creation from without, scientifically, as do evolutionary futurists. But they also experience the process from within, as their own motivation for higher consciousness, freedom and order" (Hubbard, 1983).

Spiritual futurists see human nature as evolving. The very nature of nature is to increase intelligence when it hits a limit to growth. Intellect, individuality and intuition are fused to form a higher stage of consciousness which is called "co-creative consciousness." Perhaps the most important thought in this view is that the approach links the tiny minority of futurists to the vast majority of people from all cultures who believe in a creator. It is critical to the thinking of this group that unless we see ourselves as one planetary species away from separateness and competition, we cannot survive. There must be a mind-linkage in which self-centered humans recognize that the world is one.

Basic Principles of Futurism

Cornish (1983) identified three basic principles of futurism: (1) the unity or interconnectedness of reality; (2) the crucial importance of time; and (3) the importance of ideas. Basic to almost all futurist thinking is the idea that the universe is all one piece rather than separate units. The unity of the universe is a unity of time and space and man's role in it. There exists an interconnectedness of everything in the world: man, nature, space. There is gestalt. The whole is greater than its separate parts. The world of the future is being created out of the present and by the decisions and actions of individuals.

Many people today appear to be unaware of the consequences of their choices as they continue in a preoccupied state with their immediate concerns. Problems which exist in society today did not just happen. They have roots in problems unattended

yesterday. Gradual and subtle changes may not be recognized in time to prevent a serious crisis. Once the damage is done, however, people are expected to live with it. The microdecisions of individuals, corporations, or government agencies may add up to the macroproblems unwanted by millions. Myopic vision may have catatrophic effects upon innocent populations in unborn centuries.

Earl Joseph, a Minnesota futurist and editor of Future Trends made these observations about the future: (1) the world we experience in five to 20 years is being shaped by decisions made now; and (2) almost anything can be done in 20 years. For purposes of studying the future, Joseph has divided time into the following five periods: (1) Now: the immediate future (up to one year from now); (2) the near-term future: (One to five years from now; (3) the middle-range future: (five to 20 years from now); (4) the long-range future: (20 to 50 years from now); and (5) the far future (50 or more years hence). A major purpose of studying the future is to improve the quality of decisions that are being made right now. The impact of these decisions on the longer-term future cannot be ignored by responsible people.

The last basic principle of futurism focuses on ideas. Since the future does not exist and since the human body cannot move into that time and space, the mind or the imagination and talents create ideas about what may happen in the future. Theories interlink two or more concepts to show relationships. Futurists believe that ideas can move mountains in the improvement of the human condition. Ideas about the future should be systematically generated and studied.

By definition, the future does not exist; the future refers to a time that has not yet arrived. The future will not exist even in the future, for the future exists only when it becomes the present at which time it automatically ceases to be the future. Ideas provide the substance about a time which has not yet been. Futurists use these three basic principles as they systematically devise alternative futures.

Futurists Perspectives

Cornish (1983) explored what it is that gives a person a future-oriented outlook and other characteristics which seem to go with the outlook. The following represent some of these hypotheses:

Openness to Experience. Futurists appear to be constantly searching for new information about the world. They are remarkably open to all types of ideas and alternatives. No new or provocative idea appears to "faze" a futurist.

Global Outlook. With few exceptions, most futurists have traveled beyond their native land and many have lived for extended periods of time outside the borders of their homelands. Their ideas focus on global rather than territorial space. Some, such as Isaac Asimov (science fiction) and Arthur C. Clarke (communications satellite) seem to have universal and even extraterrestrial perspectives.

Long-term Time-Perspective. The time-perspective of many futurists runs backward in time as well as into the distant future. Bertrand de Jouvenel draws from his rich background in French history as well as from his knowledge of ancient Greece

and Rome. A keen sense of human evolution enables futurists to analyze the past for cues to the present and future.

Ecological Orientation. Although futurists are not environmental fanatics, as a group they share great concern about preserving the natural environment. They have a keen sense of the infinitely complex interrelationships of the human and natural environments.

Broad Concern for Humanity. Futurists appear to demonstrate genuine concern and empathy for all living humanity in distant places and times. They show genuine concern for posterity and for the unborn generations as well as for the world they will inherit.

Rationality. Futurists are quick to reject notions which lack adequate scientific or rational bases. They rely heavily on scientific data to test their ideas and concepts.

Pragmatism. Futurists are constantly seeking realistic ways that really work in improving the human condition over the long term.

Reality of Choice. Futurists agree that the choices of individuals effect what happens to others. These choices have tremendous consequences for good or ill. Making wise choices in the present determines acceptable conditions in the future.

Interest in Values. Values determine the criteria by which one makes choices. A generally agreed upon value is that all human beings in all times and places desire happiness.

Optimism. Many futurists generally agree that mankind will survive and even prosper in the years ahead.

Sense of Purpose. Futurists appear to be very hard working people with a keen sense of mission. They show dedication to their tasks and they feel that what they are doing is important in helping create a better world.

As a group, futurists are highly creative. Gregory (1967) gave these characteristics of highly creative people: believe nothing is impossible; believe that truth as man understands it is relative; thinks in terms of abstract figures, designs, constructs; has a keen sense of self; has a high sensitivity in isolating problems; is adaptive to change of events and circumstances; is highly original in conceptual output; is open minded and does not make too rapid closure; plays with the juxtapositions of concepts, ideas, facts and things; has a high written and spoken language fluency. This list appears to further describe those who identify as futurists. Creative people appear to find satisfaction and fulfillment in the uses of future studies. Some uses are those discussed below.

Uses of Future Studies and Concepts

The rapidity of change, the urgency and magnitude of problems, the general unrest and the lack of lasting security or direction are causing individuals, businessmen and government officials to respond to crises rather than to prevent them. Cornish (1983) stated that timely action can be taken to deal with problems before they become disasters through the systematic exploration of future possibilities.

Futurists recognize that all decision-making involves some kind of forecasting. These forecasts may be only assumptions,

but one assumption appears valid: The future will not be like the past. Thus, through a systematic study of futuribles (ideas about what may happen in the future) planning can become more efficient and effective. Cornish (1983) p. 219) outlined additional uses of futures studies as follows:

- Assisting the decision-making process by: (a) providing useful frameworks for decision-making, (b) identifying dangers and opportunities, (c) suggesting a variety of possible approaches to solving a problem, (d) helping to assess alternative policies and actions, (e) enabling people to see the present, (f) increasing the degree of choice, (g) setting goals and devising means to reach them.

- Preparing people to live in a charging world by: (a) providing "pre-experience" so that the future does not come as a shock. (b) offering a framework for understanding change as a normal process, (c) making the future an object of conscious study so that it becomes more interesting and exciting to contemplate.

- Offering a framework for reconciliation and cooperation. This applies not only for small organizations and communities but for nations and international communities.

- Contributing to science and thought.

- Aiding creativity.

- Helping to motivate people, both young and old, to learn.

- Providing a perspective for developing a well integrated personal outlook or philosophy of life.

- Offering a means for recreation or "fun."

Current literature, planning sessions, and conference titles among other evidences, suggest that the above uses of futures study are effective.

Some Methods for Studying the Future

Futurists agree with historians that ideas about the past help in understanding the future. However, futurists are not content to stop with the past; they want to use this knowledge to help in developing possible futures, for the focus of human action is in the future.

How does one study the future when it does not exist? At best, the future is vague and unclear. Meterologists forecast weather and demographers forecast population growth. So, to, can futurists look ahead in time. Planners have become a major group in most business and city departments. If planners are to be successful architects of the future, their progress will largely be determined by their skills in defining and constructing the future. Probabilities may become projections.

Forecasting success depends on the ability of the researchers to identify patterns of behavior or trends based upon past events and times. The success of the process, therefore, depends upon several factors such as the extent to which the forecaster has access to data required, the extent to which reliable patterns exist, and the extent to which the forecaster can correctly identify these patterns. Thus, forecasters and experimental scientists hold much in common. Experimental research may, in fact, produce unexpected results, just as the forecaster may not always be correct with the scenario selected. Social scientists do not hold complete control over a culture or a social group; thus, intervening variables may produce unexpected results, some

of which may or may not be desirable, but which may lead to unexpected and valuable data. So it is with the futurist as desirabilities, probabilities and likelihoods are examined.

Two forecasting approaches frequently used by futurists are exploratory and normative or predictive forecasting. Exploratory methods start from the present and its preceding history and attempt to project future developments. Normative forecasts start with some desired future and work backward to derive feasible routes for the transition from the present to this desired future.

Exploratory forecasting methods include: trend extrapolation, cross-impact methods, scenarios, and simulation models. Trend extrapolation is based upon the continuance of constants and regularities in daily life. Correlation methods make use of observed relationship between the topic to be forecast and some other factor which can be more directly measured. An example is the correlation between births and school enrollments. Limitations to this method involve the reliability and validity of the data base. Events are usually projected one-on-one rather than possible influence on each other. Cross-impact analysis is a technique to combine events and developments. The usefulness of cross-impact analysis is dependent upon identifying the relevant events which affect one another, and on the correctness of the statements of interactions among the individual forecasts.

Scenarios are statements about one possible state of affairs, given certain assumptions about present and future events. Thus, scenarios supply substance to trends. They may provide

alternative contexts for decision making. The value of a scenario rests not in whether or not it predicts right answers, but rather in allowing planners to see the pathways through which a system can be changed to achieve desired goals.

Simulation models attempt to reproduce the behavior of a system through mathematics. These models, usually computerized, can manipulate data and perform high speed calculations. They provide explicit frameworks for thinking about the future of a given aspect of the real world. The development of simulation models implies that all significant factors influencing change as well as all of the interactions among these factors are known.

Normative forecasting methods include relevance trees and morphological analysis. The major purpose of this forecasting is to identify preferred futures and to determine how to reach such futures. The forecaster first identifies needs and goals and then works back to the present situation. The relevance tree offers alternative pathways for attaining predetermined goals. These goals are usually hierarchical in nature. These trees may have numerous branches, but all factors relate to the main idea. Morphologial analysis is similar to the relevance tree, but it is not hierarchical in nature. This method has been defined as any method which seeks to identify all possible means of achieving a given end.

The Delphi Technique is a carefully designed program of sequential individual interrogations interspersed with information and opinion feedback. This technique operates on the premise that several heads are better than one in making subjective

conjectures about the future. It is assumed that in the process of seeking intelligent opinions from experts in a given field that hope may be separated from likelihood. Usually, there are several rounds of opinion gathered. In the first, participants make their initial projections on a numerical scale. The median responses are calculated and returned to the participants who make a second estimate. At this time, participants are also requested to submit the rationale for their response if it is very different from the median. The medians from the second round are calculated and returned to participants along with a summary of reasons for estimates which vary from the median. The third and final round requires respondents to submit their projections. The polling, aggregation and feedback continues until consensus, defined as the median or responses, develops. The success of this method depends upon panel selection. Experts in the relevant field must be invited to participate. Their knowledge base and commitment are extremely critical to the utlimate success of the study. Since anonymity of panel members is ensured, prevention of being influenced by personalities or perceived authority contributes to success of the investigation.

There are many other techniques used by futurists in their quest for relevant, scientific data. Old methods are refined and new ones appear. The above comments represent only the brief explanation of some of the more commonly used methods for studying the future.

Summary and Conclusions

This overview of Futurism 1984 has included only brief explorations of the present focus on futurism, a few historical guideposts in the development of futurism and three different views or approaches to futurism. The hope of the future, according to one futurist, rests in a new synthesis of these three approaches to the future.

Our world is in a state of transformation. The rapidity of change and the consequences of these changes have created global crises. We appear to be entering the Communications or Electronic Era. Futurists express great and genuine concern about the condition of the planet as well as for all mankind thereon.

The modern movement in futurism began in the United States about 40 years ago in the interest of national security. The landing of an American on the moon is an example of accurate forecasting and futuristic thinking. Space exploration has shown that the impossible is possible.

There are basic principles which appear to guide the thinking of most futurists. There is no such thing as an average futurist inasmuch as futurists come from diverse backgrounds and hold many different levels of expertise in their given areas of interests around the world. For many, thinking of the future is not a vocation, but an avocation.

The realm of futurism is much larger than most people image. Futurism has existed since ancient times. History is used by futurists as a source of clues to the present and to the future. It has been demonstrated that the future can be studied in a

rational and scientific manner. Ideas are tools of futurists who think that even small ideas can move mountains. The Delphi technique was one of the first methods developed for studying the future. Forecasts are educated projections of a future time which actually does not exist. Scenarios are merely statements about a future time.

There is a rapidly expanding number of people around the world who are interested in joining organized groups and in networking for the purpose of creating a desirable future. It is peceived by futurist that man can create a positive and desirable future with wise decision making today. A major reason for studying the future is to assist man with wise decision making for the future.

YESTERDAY IS A CANCELLED CHECK
TOMORROW IS A PROMISSORY NOTE
TODAY IS THE ONLY CASH YOU HAVE...
SO SPEND IT WISELY
Author Unknown

Thank you for this opportunity...and your attention

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